# ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

# **NEWS RELEASE**



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# 2016 Preliminary Kuskokwim Area Salmon Season Summary

# **Kuskokwim Area Management**

The 2016 season marked the first time since statehood that there were no large scale commercial salmon buyer/processors in the Kuskokwim Area. This resulted in very little opportunity for fishermen in District 1 and no opportunity for fishermen in District 4 (Quinhagak) and District 5 (Goodnews Bay).

# **Kuskokwim River**

## **Preseason Forecast and Management Strategies**

The 2016 Kuskokwim River Chinook salmon forecast was for a return of 125,000–219,000. The drainagewide Chinook salmon sustainable escapement goal (SEG) is 65,000–120,000. Average subsistence Chinook salmon harvest is 84,000.

The Alaska Board of Fisheries (BOF) met in January to consider proposals concerning the Arctic-Yukon-Kuskokwim areas. The most significant regulatory change for the Kuskokwim Management Area was the establishment of an early season subsistence fishing closure. The regulation annually suspends directed subsistence fishing for Chinook salmon in the Kuskokwim River until after June 11.

## **Inseason Subsistence Management**

Preseason management actions including early season subsistence fishing closures, tributary closures, time and area restrictions, gillnet mesh size and length restrictions, and live release requirements were jointly recommended by the Alaska Department of Fish and Game (ADF&G), and the United States Fish and Wildlife Service (USFWS) in an effort to achieve escapement goals. The Kuskokwim River Salmon Management Working Group (Working Group) voted to support the management actions.

The early season subsistence fishing closure was initiated on May 20 from the mouth of the Kuskokwim River to the Holitna River and upstream of the Holitna River beginning June 1. With the closure came additional restrictions including tributary closures and live release of Chinook salmon requirements.

Beginning June 1, the Federal Subsistence Board adopted a Special Action to close the Kuskokwim Chinook and chum salmon fishery to non-Federally qualified users within the boundary of the Yukon Delta National Wildlife Refuge (NWR). The USFWS managed the subsistence fishery within the Yukon Delta NWR through 6:00 p.m. July 7 at which time ADF&G resumed management of the entirety of the Kuskokwim River.

Subsistence management under ADF&G consisted of a June 12, 48 hour 6-inch or less mesh, 25 fathom gill net opportunity from the refuge boundary at Aniak to the Holitna River and removal of subsistence restrictions in waters upstream of the Holitna River. Beginning June 16, ADF&G removed all subsistence fishing restrictions upstream of the refuge boundary at Aniak except for the Aniak River gillnet closure which remained in effect. Final removal of all subsistence restrictions for the entire Kuskokwim River drainage occurred on July 27.

Postseason subsistence harvest surveys are presently being conducted. An assessment of subsistence salmon harvest in 2016 will not be available until after postseason harvest surveys have been completed, data have been analyzed, and preliminary harvest estimates are produced.

# **District 1 Commercial Fishery**

#### 2016 Commercial Harvest Outlook and Harvest

	<u>Chinook</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Chum</u>
2016 Outlook	0	5,000-20,000	80,000-140,000	100,000-200,000

Short commercial fishing opportunities directed at coho salmon were provided in the Kuskokwim River on July 29 and August 12 resulting in well below average harvests. Participants included those commercial fishermen who had registered with the department as catcher/sellers and had secured their own markets. Due to the small number of participants during these commercial fishing periods State of Alaska confidentially requirements prohibit release of the harvest.

## **Run Timing and Escapement**

#### Chinook Salmon

The preliminary Kuskokwim River total run estimate is approximately 186,400 Chinook salmon (95% CI: 141,300–245,800). The Kuskokwim River drainagewide escapement goal was likely achieved, but will not be fully assessed until after all data has been analyzed this winter.

Due to the early season subsistence fishery closures, Bethel Test Fish (BTF) was limited as an indicator of Chinook salmon run timing. Subsistence harvest is historically weighted towards the beginning of the run, and the lack of this early season fishery resulted in the evaluation of a larger proportion of the early run than other years on record. Run timing was average based on BTF.

Chinook salmon escapement at Kogrukluk River weir achieved the SEG though escapement at George River weir was below the SEG. The Kwethluk River experienced operational difficulties throughout the season. Subsequently Chinook salmon passage did not meet the established SEG (Table 1). Seven tributaries have aerial survey SEGs and of these three tributaries were within the respective SEG ranges and four tributaries were either below the SEG or stream conditions prevented an accurate survey (Table 2).

# **Sockeye Salmon**

Based on BTF sockeye salmon run timing was late. Overall, sockeye salmon escapement was well above average across the drainage. The Kogrukluk River weir has the only established sockeye salmon escapement goal which was exceeded. The Telaquana weir observed the second highest escapement of sockeye salmon since 2010 (Table 3).

# **Chum Salmon**

Chum salmon run timing at BTF was late and all escapement projects showed a below average run. Escapement at the Kogrukluk River weir achieved the SEG (Table 4).

#### Coho Salmon

High water conditions hampered efforts to assess the coho salmon run at escapement projects drainagewide. Coho salmon passage at the Kwethluk River weir met the SEG for that system. Counts at Kogrukluk River weir are considered incomplete due to high water (Table 5).

# **Kuskokwim Bay**

# **District 4 (Quinhagak)**

There were no commercial salmon fishing periods in District 4 during the 2016 season due to a lack of processing capacity.

## **Run Timing and Escapement**

The Kanektok River weir was not operated in 2016 due to a lack of funding. Subsequently, aerial surveys were conducted in order to assess escapements throughout the drainage. The Kanektok River Chinook salmon aerial survey SEG (range 3,500–8,000) was achieved with 5,631 fish observed, while the sockeye salmon aerial survey SEG (range 14,000–34,000) was exceeded with 80,160 fish observed (Table 6).

# **District 5 (Goodnews Bay)**

There were no commercial salmon fishing periods in District 5 during the 2016 season due to a lack of processing capacity.

# **Run Timing and Escapement**

The Chinook salmon biological escapement goal (BEG) of 1,500–2,900 fish was exceeded with an escapement of 3,615 fish (Table 7). The sockeye salmon BEG (range 18,000–40,000) was exceeded with an escapement of 149,214 fish. The chum salmon lower bound SEG of 12,000 was also exceeded with escapement of 29,445 fish (Table 7). The Middle Fork Goodnews River weir was removed on July 31 due to a loss of funding that would cover weir operations through the end of August. An aerial survey was flown to assess the North Fork Goodnews River on August 2. The Chinook salmon aerial SEG of 640–3,300 fish was achieved with a count of 1,120 fish, while the sockeye salmon SEG of 5,500–19,500 was exceeded with 90,060 fish counted (Table 7).

Table 1.-Chinook salmon spawning weir escapement, Kuskokwim River drainage, Kuskokwim Management Area 2005–2016.

	Chinook Salmon Escapement						
Year		Kwethluk	Tuluksak	George	Kogrukluk	Tatlawiksuk	Salmon
2005		a	2,653	3,845	21,819	2,864	a
2006		17,619	1,043	4,355	20,205	1,700	7,075
2007		12,927	374	4,011	a	2,032	6,255
2008		5,276	701	2,563	9,750	1,075	2,376
2009		5,744	362	3,663	9,528	1,071	1,656
2010		1,667	201	1,498	5,812	546	a
2011		4,079	288	1,547	6,731	992	a
2012		a	555	2,201	a	1,116	a
2013		a	193	1,292	1,819	495	625
2014		3,187	320	2,993	3,732	1,904	1,757
2015		8,163	709	2,281	7,639	2,095	2,285
2016	b	3,555	909	1,489	6,913	1,888	503
SEG		4,100-		1,800–	4,800–		
		7,500		3,300	8,800		
Average							
2006–2015		7,333	475	2,640	8,152	1,303	2,817

<sup>&</sup>lt;sup>a</sup> Weir did not operate or counts were incomplete.
<sup>b</sup> Preliminary numbers subject to change.

Table 2.-Chinook salmon spawning aerial survey index estimates, Kuskokwim River Drainage, Kuskokwim Management Area, 2005-2016.

	Lower Kuskokwim River <sup>a</sup>			Middle Kuskokwim River <sup>a</sup>				Upper Kuskokwim River <sup>a</sup>						
·		Kwethluk											Salmon	Bear
Year	Eek	Canyon C.	Kisaralik	Tuluksak	Aniak	Kipchuk	Salmon	Holokuk	Oskawalik	Holitna	Gagarayah	Cheeneetnuk	(Pitka)	(Pitka)
2005	b	5,059	2,206	672	b	1,679	4,097	268	582	1,760	788	1,155	1,801	367
2006	b	b	4,734	b	5,639	1,618	b	365	386	1,866	531	1,015	862	347
2007	b	b	692	173	3,984	2,147	1,458	146	b	b	1,035	b	943	165
2008	b	487	1,074	b	3,222	1,061	589	190	213	b	177	290	1,305	245
2009	b	b	b	b	b	b	b	390	379	b	303	323	632	209
2010	b	b	235	b	b	b	b	108	b	587	62	b	135	75
2011	263	b	534	b	b	116	79	20	26	b	96	249	767	145
2012	b	b	610	b	b	193	49	9	51	b	178	229	670	b
2013	240	1,165	597	83	754	261	154	29	38	670	74	138	475	64
2014	206	b	622	b	3,201	1,220	497	80	200	1,785	359	340	1,865	b
2015	b	b	709	b	b	917	810	77	b	662	19	b	2,016	1,381
2016	b	b	622	b	718	898	b	100	47	1,157	135	217	1,578	580
Escapement			400-		1,200-		330-			970–	300-	340-	470-	
Goal Range:			1,200		2,300		1,200			2,100	830	1,300	1,600	
Average														
2006–2015	236	826	1,090	128	3,360	942	519	141	185	1,114	283	369	967	329

<sup>&</sup>lt;sup>a</sup> Estimates are from aerial surveys conducted during peak spawning periods under 'good' or 'fair' survey conditions.
<sup>b</sup> Survey was either not flown or did not meet acceptable survey criteria.

Table 3.-Sockeye salmon spawning weir escapement, Kuskokwim River drainage, Kuskokwim Management Area 2005–2016.

	Sockeye Salmon Escapement							
Year	Kwethluk	Tuluksak	George	Kogrukluk	Tatlawiksuk	Telaquana	Salmon (Aniak)	
2005	a	642	272	37,787	74	a	a	
2006	6,733	985	146	61,382	38	a	7,086	
2007	5,148	352	65	17,211	25	a	2,189	
2008	2,451	188	92	19,675	39	a	1,181	
2009	4,230	686	54	22,826	39	a	1,366	
2010	4,188	437	113	17,139	28	72,021	a	
2011	2,031	130	43	7,974	15	35,105	a	
2012	a	189	79	a	9	22,994	924	
2013	a	394	150	7,808	37	27,806	966	
2014	3,778	514	156	6,413	9	23,820	894	
2015	8,975	824	139	6,362	0	91,164	1,461	
2016	b 20,495	1,509	2,778	19,950	240	82,435	185	
SEG				4,400–17,00	00			
Average								
2006–2015	6,448	470	104	18,532	24	50,764	2,008	

<sup>&</sup>lt;sup>a</sup> Weir did not operate or counts were incomplete.
<sup>b</sup> Preliminary numbers subject to change.

Table 4.-Chum salmon spawning weir escapement, Kuskokwim River drainage, Kuskokwim Management Area 2005–2016.

	Chum Salmon Escapement						
Year	Kwethluk	Tuluksak	George	Kogrukluk	Tatlawiksuk	Aniak	Salmon (Aniak)
2005	a	35,696	14,834	194,887	55,599	1,151,505	a
2006	47,491	25,652	42,318	188,003	32,776	1,108,626	42,825
2007	54,913	17,286	61,531	52,961	83,484	696,801	25,340
2008	20,030	12,550	29,396	44,744	30,129	427,911	9,459
2009	32,191	13,671	7,944	82,483	19,975	479,531	9,392
2010	19,222	13,042	26,275	69,258	37,737	429,643	a
2011	18,329	10,011	46,650	76,823	88,202	345,630	a
2012	a	16,981	33,310	a	44,569	a	a
2013	a	12,911	37,879	65,644	32,249	a	7,723
2014	17,941	8,726	17,148	30,763	12,455	a	2,890
2015	23,039	6,337	17,415	31,657	10,008	a	5,392
2016	b 22,914	5,868	18,345	43,736	9,238	a	589
SEG				15,000-		222,000-	
				49,000		480,000	
Average							
2006–2015	28,452	13,717	31,987	71,371	39,158	581,357	12,951

<sup>&</sup>lt;sup>a</sup> Weir did not operate or counts were incomplete.
<sup>b</sup> Preliminary numbers subject to change.

Table 5.-Coho salmon spawning weir escapement, Kuskokwim River drainage, Kuskokwim Management Area, 2005–2016.

		Coho Salmon Escapement						
Year	Kwethluk	Tuluksak	George	Kogrukluk	Tatlawiksuk	Salmon (Aniak)		
2005	a	11,324	8,294	25,407	7,076	a		
2006	25,667	6,111	12,705	16,268	a	a		
2007	19,473	2,807	28,398	26,423	8,500	a		
2008	48,049	7,457	21,931	29,237	11,022	10,974		
2009	21,911	8,137	12,490	22,289	10,148	6,351		
2010	a	1,525	12,639	14,689	3,773	a		
2011	a	a	29,120	21,800	14,184	a		
2012	20,895	4,407	14,478	13,421	8,015	a		
2013	a	6,490	15,308	21,207	12,764	2,797		
2014	43,945	13,797	35,771	52,975	19,814	8,254		
2015	24,367	7,158	33,642	29,277	17,319	a		
2016	b 28,852	1,857	17,256	b	8,757	560		
SEC	> 10,000			13,000-				
SEG	>19,000			28,000				
Average								
2006–2015	29,187	6,432	21,648	24,759	11,727	7,094		

<sup>&</sup>lt;sup>a</sup> Weir did not operate or counts were incomplete.
<sup>b</sup> Preliminary numbers subject to change.

Table 6.-Kanektok River salmon spawning escapement estimates, 2005-2016.

		Weir Esc	Aerial Surve	y Escapement		
Year	Chinook	Sockeye	Coho	Chum	Chinook <sup>a</sup>	Sockeye <sup>b</sup>
2005	14,177	268,537	c	55,340	14,202	110,730
2006	С	С	c	c	8,433	382,800
2007	13,965	304,086	c	131,000	d	d
2008	c	c	c	c	3,659	38,900
2009	7,065	305,756	c	55,846	d	d
2010	6,537	204,954	c	68,186	1,228	16,950
2011	5,170	88,177	c	53,050	d	d
2012	1,561	115,021	c	28,726	d	d
2013	3,569	128,761	c	43,040	2,346	64,802
2014	3,594	259,406	c	18,602	1,871	148,800
2015	10,416	106,751	c	15,048	4,919	39,970
2016 <sup>e</sup>	c	c	c	c	5,631	80,160
Average						
2006–2015	6,485	189,114		51,687	2,805	61,884

<sup>&</sup>lt;sup>a</sup> Chinook salmon SEG is 3,500–8,000 fish.
<sup>b</sup> Sockeye salmon SEG is 14,000–34,000 fish.
<sup>c</sup> Weir did not operate or counts were incomplete.
<sup>d</sup> Survey was either not flown or did not meet acceptable survey criteria.
<sup>e</sup> Preliminary numbers subject to change.

Table 7.-Salmon spawning escapement estimates, Goodnews River Drainage, Kuskokwim Bay, 2005–2016.

	Middle	Fork Goodnev	vs R. Weir E	NorthFork Goodnew	vs R. Aerial Escapement	
Year	Chinook	Sockeye	Coho	Chum	Chinook	Sockeye
2005	4,781	118,969	20,168	26,501	a	a
2006	4,572	127,245	26,909	54,689	a	a
2007	3,914	73,768	19,442	50,232	a	a
2008	2,223	43,879	37,690	39,548	2,155	32,500
2009	1,669	27,494	19,123	19,236	a	a
2010	2,176	36,574	26,287	24,789	a	a
2011	2,045	19,643	24,668	19,974	853	14,140
2012	524	29,531	13,679	9,065	378	16,710
2013	1,187	23,545	b	27,682	a	a
2014	750	41,473	5,294	11,518	630	a
2015	1,398	54,383	15,084 <sup>c</sup>	10,885	991	38,390
2016 <sup>d,e</sup>	3,615	149,214	b	29,445	1,120	90,060
Esc Goal	1,500-	18,000-				
ESC Goal	2,900	40,000	>12,000	>12,000	640-3,300	5,500-19,500
Average						
2006-2015	2,046	47,754	20,908	26,762	1,001	25,435
b Weir did no Weir opera	ot operate or ations ended y numbers s	r counts were a Aug 31 ubject to chan	incomplete.	otable survey o	criteria.	